MICHIGAN STATE UNIVERSITY

Alpha Presentation

Mobile Application for XCP Measurement and Calibration

The Capstone Experience

Team Bosch

Andrew Tomaka
John Adams
Phil Plachta
Jake Lange
Neil Wu

Department of Computer Science and Engineering
Michigan State University

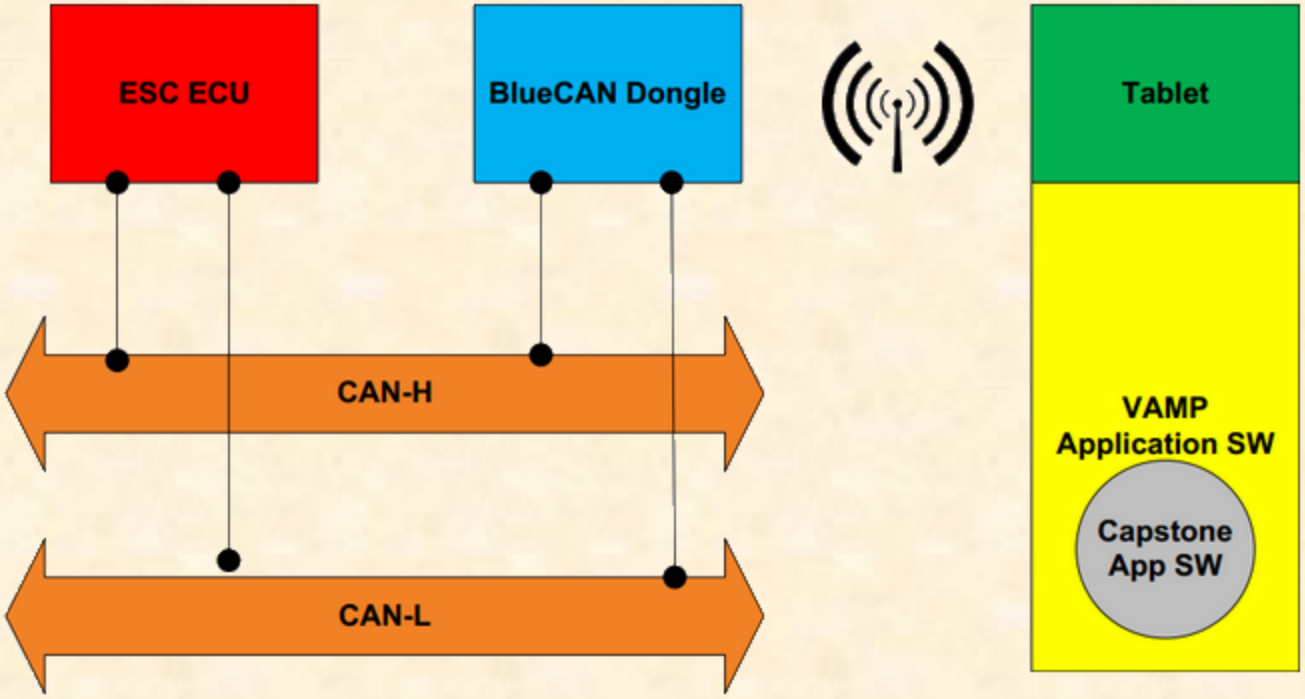
Fall 2014

From Students…
…to Professionals

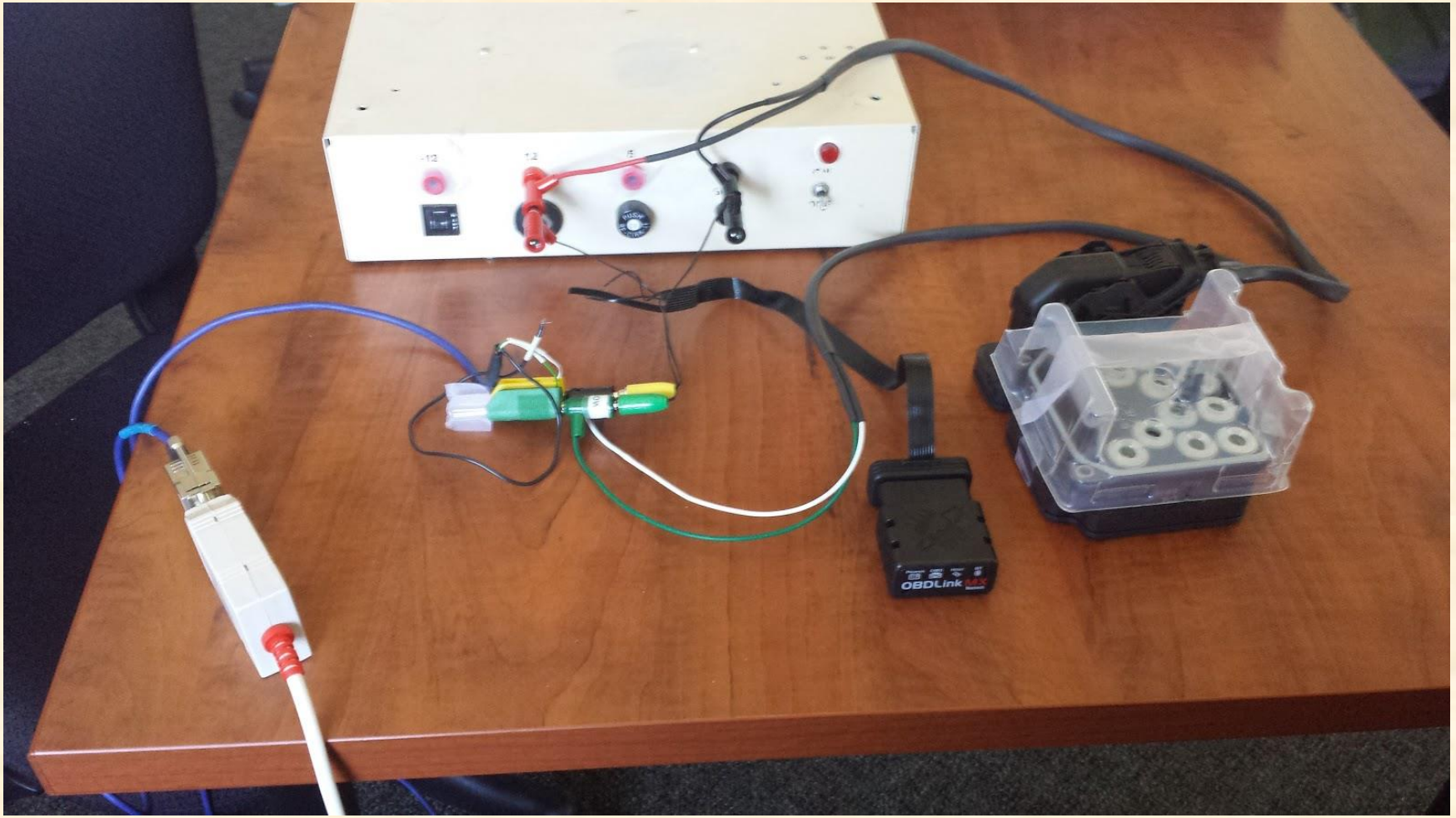
Project Overview

- Mobile application
- That communicates with vehicles
- To receive measurements
- And calibrate vehicles
- Via Bluetooth

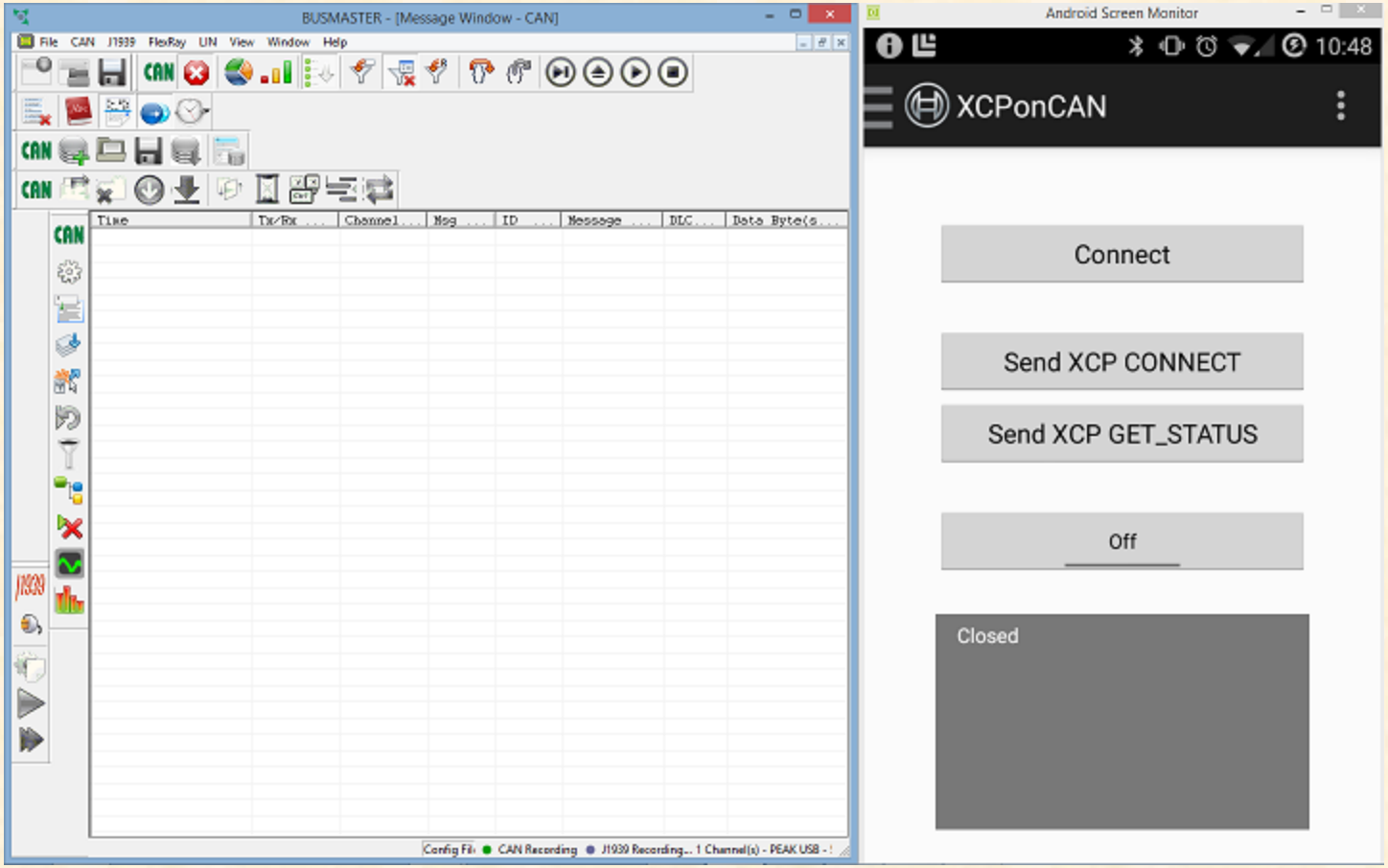
System Architecture



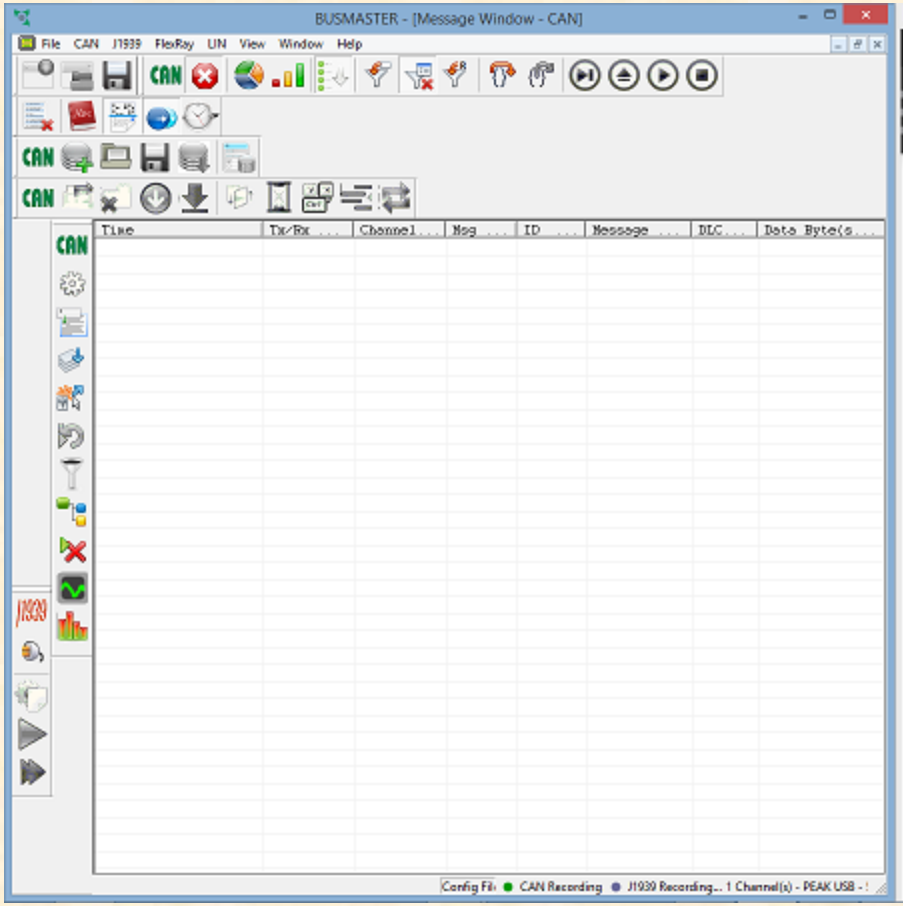
Hardware

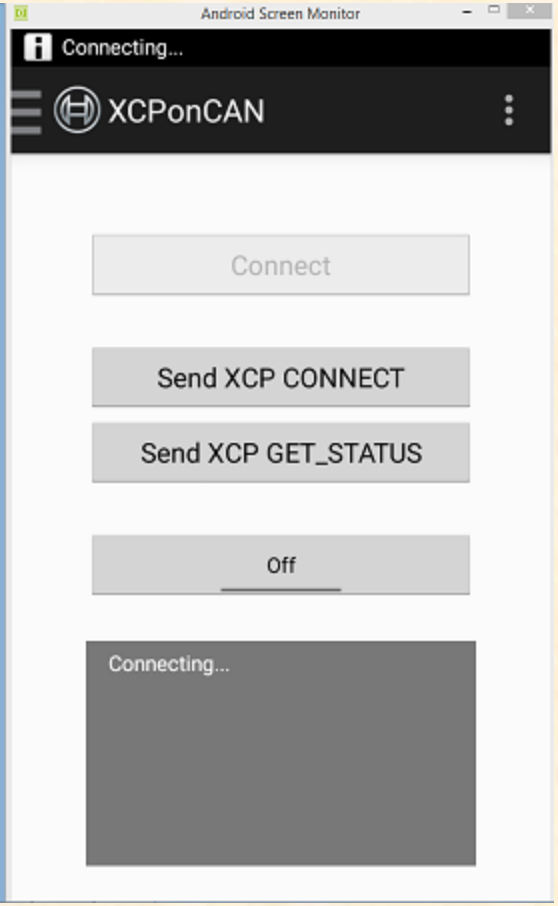


Initial Launch

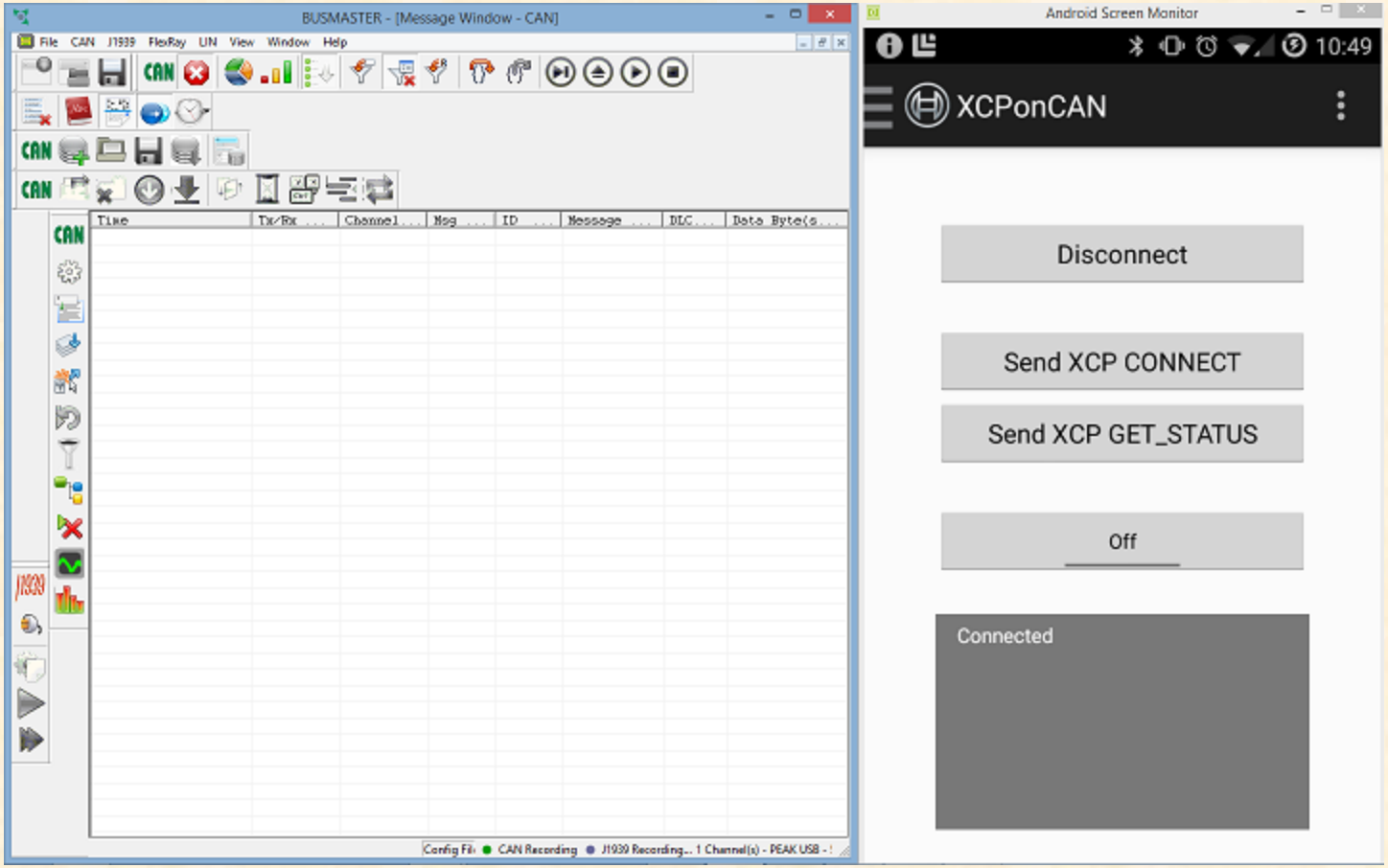


Attempting to Connect

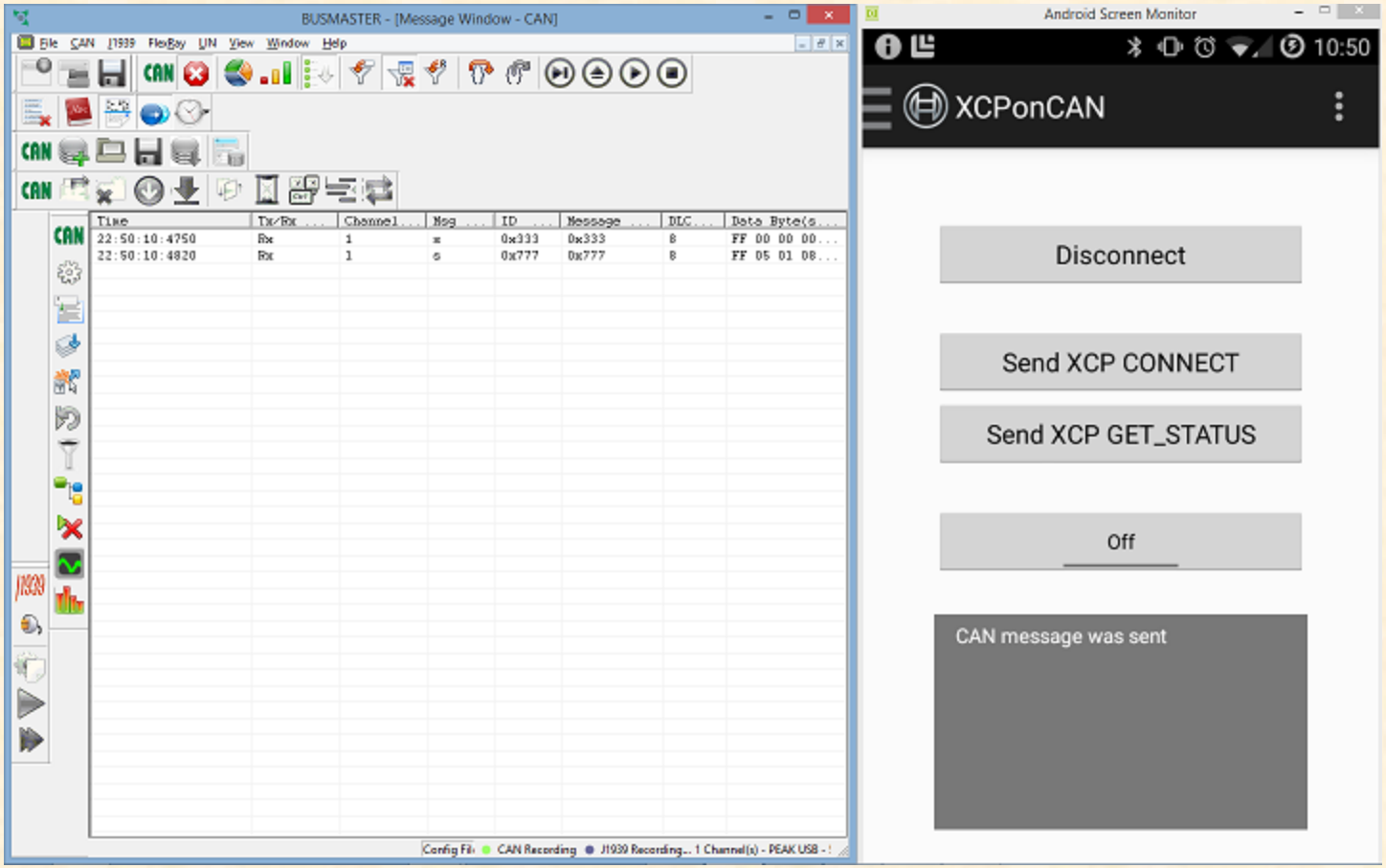




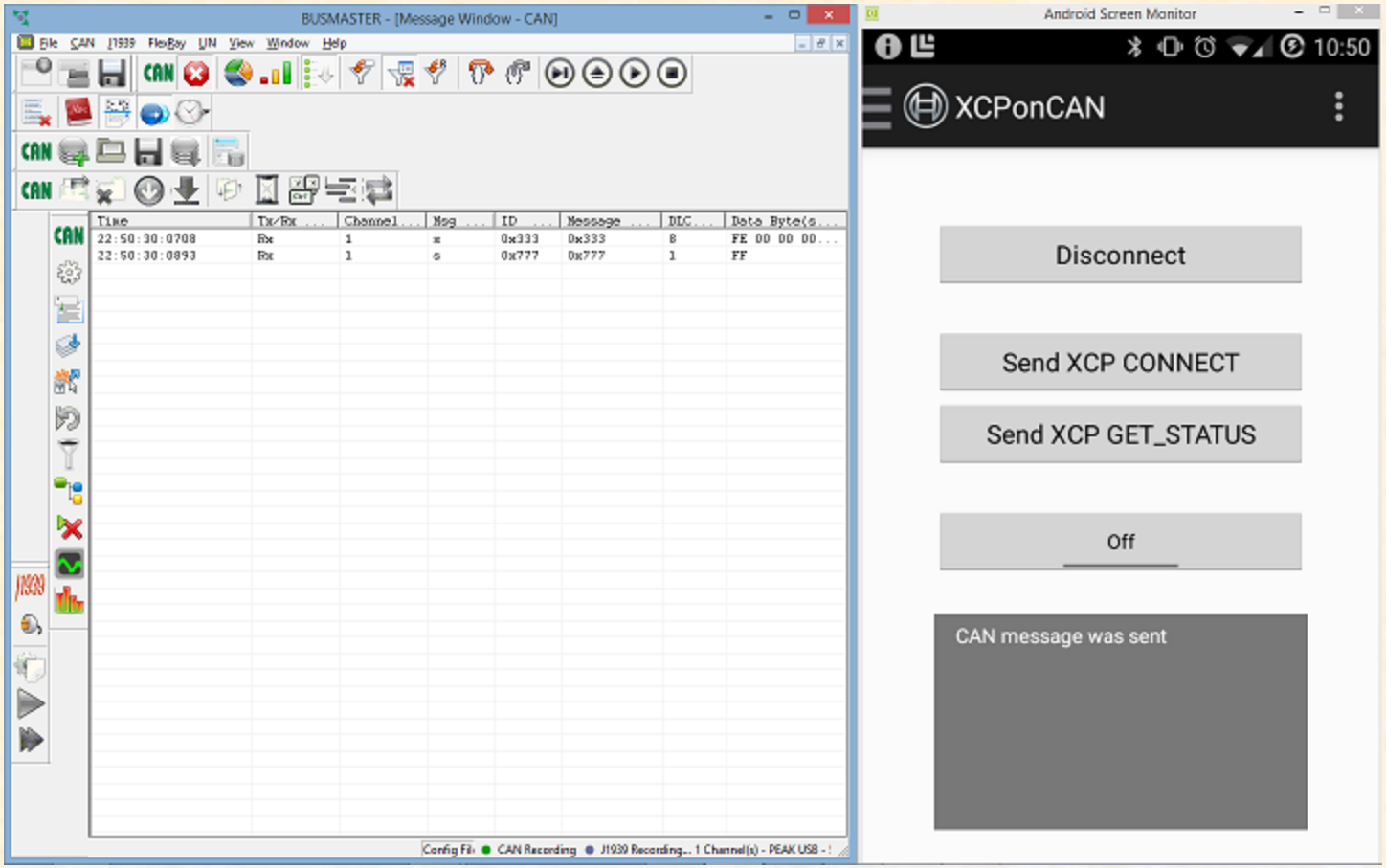
Connected


BUSMASTER - [Message Window - CAN]
File CAN J1939 FlexRay LIN View Window Help
Time
Tx/Rx
Channel
Msg
ID
Message
DLC
Data Byte(s
Android Screen Monitor
10:49
XCPonCAN
Disconnect
Send XCP CONNECT
Send XCP GET_STATUS
Off
Connected

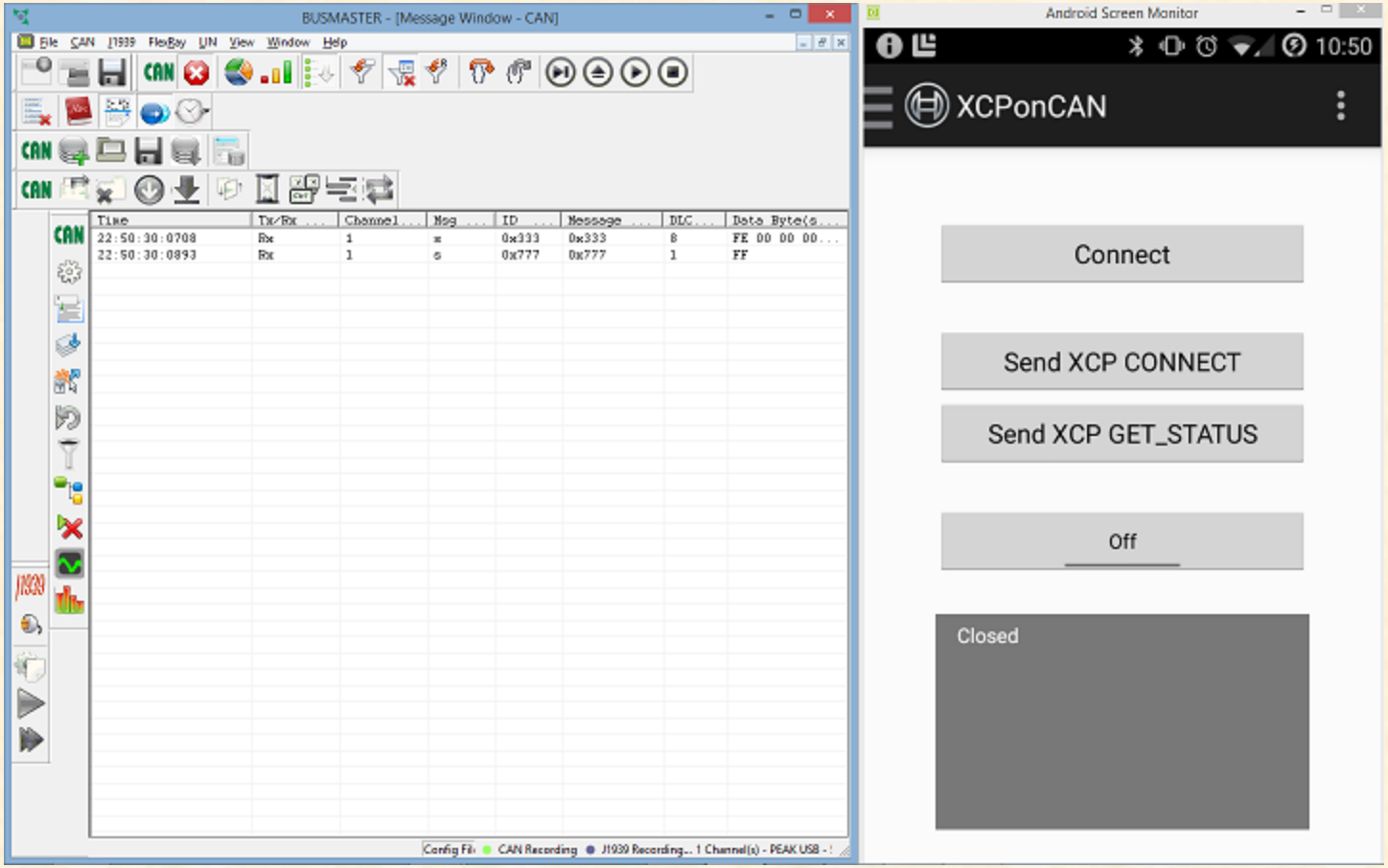
Send XCP CONNECT



Send XCP GET_STATUS



Disconnected



What's left to do?

- Encapsulate CAN functionality in library
- Implement XCP protocol rules
- Research calibration